News and Views From the Literature

Nocturia

Use of Desmopressin in the Elderly

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Desmopressin in Elderly Patients With Nocturia: Short-Term Safety and Effects on Urine Output, Sleep and Voiding Patterns

Rembratt A, Norgaard JP, Andersson KE.

BJU Int. 2003;91:642-646.

In this study, Rembratt and colleauges investigated the short-term safety of desmopressin in elderly patients with nocturia, with a special focus on the risk of hyponatremia, and assessed the agent's short-term effects on urine output, sleep, and voiding patterns.

Seventy-two men and women older than 65 years were recruited from a study that used frequency-volume charts, which in turn was preceded by a questionnaire study. Each patient received a 0.2-mg desmopressin tablet at bedtime for 3 consecutive nights and maintained a frequency-volume chart. Serum sodium was assessed in the mornings after the first and the third dose. Patients with a mean serum sodium level during treatment deviating more than 5 units from baseline were considered sensitive to change in serum sodium. Potential predictors for sodium sensitivity and response were investigated with logistic and multiple regression.

All 72 enrolled patients completed the trial. No serious adverse events occurred, and no adverse events of severe intensity were recorded. Six patients were sensitive to change in serum sodium. The risk increased with increasing age (odds ratio [OR], 1.3), concomitant cardiac disease (OR, 10.0), and increasing baseline 24-hour urine output (OR, 1.2). Patients who were sensitive to change in serum sodium were pharmacologic responders, and desmopressin had a greater effect on their 24-hour diuresis.

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Although this study concluded that desmopressin is generally safe in the elderly, several concerns remain. The study cohorts were all Caucasian (Swedes) and in good health. None smoked or consumed alcohol to excess (mean, 0.8 units ethanol/wk). It is not known whether

desmopressin's safety in this group of healthy Norwegians would translate to the ethically diverse US elderly population, with its multiple medical problems. In addition, acceptable sodium levels after 3 days of treatment does not guarantee that the drug is safe after 1 month or 1 year of administration. Several of my patients have presented to the emergency department with confusion and were subsequently found to have sodium levels less than 125 mmol/L after taking stable does of desmopressin for weeks to months.

Overall, I believe that desmopressin is a safe and effective drug, and I have had success with this treatment in adult neurogenic bladder patients. However, use of desmopressin in the elderly, even if apparently healthy, should be initiated with considerable caution. ■

Erectile Function

The Effects of Phosphodiesterase-5 Inhibitors in Men With "Normal" Erectile Function

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A common belief among the lay population is that oral phosphodiesterase-5 inhibitors will make a "normal" man become "supernormal" regarding his erectile capabilities. Two studies on this topic have been published, both of which have emanated from Italy. In the first study,[1] which was reviewed in a previous issue of *Reviews in Urology*,[2] investigators concluded that sildenafil (50 mg) improved erections in normal men. However, the average age of study subjects was 39 years, an age that impotence experts would most likely not equate with "normal" erectile capabilities.

Sildenafil Does not Improve Sexual Function in Men Without Erectile Dysfunction but Does Reduce the Postorgasmic Refractory Time

Mondaini N, Ponchietti R, Muir GH, et al.

Int J Impot Res. 2003;15:225-228.

In the second study, by Mondaini and colleagues, the investigators lowered the threshold of normal age to a mean age of 33 years in the sildenafil group (n = 30) and 31 years in the placebo group (n = 30). The International Index of Erectile Function (IIEF) score was 26 or greater at baseline for all subjects in both groups. Patients received sildenafil, 25 mg, or placebo and recorded their posttreatment IIEF score and refractory time to obtaining a second erection.

Study results demonstrated no difference in erectile function between the subjects who received sildenafil and those who received placebo. However, the subjects who received sildenafil recorded a lower refractory time than those who received placebo ($P < .04$). A criticism of this study is that the subjects received only 1 pill, so that outcome measures were made after only 1 trial. Nevertheless, this study suggests that sildenafil will not make a normal man supernormal in terms of his erection but may reduce the refractory time in young men. Whether it is appropriate for a physician to treat a patient with the goal of improving latency time is debatable. ■

References

1. Rochira V, Granata AR, Balestrieri A, et al. Effects of sildenafil on nocturnal penile tumescence and rigidity in normal men: randomized, placebo-controlled, crossover study. *J Androl.* 2002;23:566-571.
2. Rajfer J. Prescribing PDE5 inhibitors: who is the "normal" man? *Rev Urol.* 2002;4:197-198.

Prostate Cancer

Tissue Microarrays in Prostate Cancer Research

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The high-density tissue microarray (TMA) was developed by Kononen and colleagues[1] for the purpose of rapidly analyzing a large number of samples with either in situ or immunohistochemical methods on a single slide. The technique involves taking core tissue biopsies (diameter, 0.6 mm; height, 3-4 mm) from individual "donor" paraffin-embedded tumor blocks and arraying them in a new "recipient" paraffin block (45 × 20 mm) using a custom-built instrument. Using 0.6-mm cores while preserving the histologic information allows as many as 1000 specimens to be arrayed in a single recipient